

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Challam Sampling Date 3-18-10
 Applicant/Owner Moulson State _____ Sampling Point 1B8
 Investigator(s) Rmeyer Section, Township, Range. _____
 Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none) _____ Slope (%) 51
 Subregion (LRR) LRA Lat _____ Long _____ Datum _____
 Soil Map Unit Name (12) Challam NWI classification non
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>_____</u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>_____</u> No <u>X</u>
Hydric Soil Present?	Yes <u>_____</u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u>_____</u>	
Remarks		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size <u>_____</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC <u>1</u> (A) Total Number of Dominant Species Across All Strata <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC <u>25%</u> (A/B)
1				
2				
3				
4				
				= Total Cover
Sapling/Shrub Stratum (Plot size <u>_____</u>)				Prevalence Index worksheet: Total % Cover of <u>_____</u> Multiply by <u>_____</u> OBL species <u>_____</u> x 1 = <u>_____</u> FACW species <u>_____</u> x 2 = <u>_____</u> FAC species <u>_____</u> x 3 = <u>_____</u> FACU species <u>_____</u> x 4 = <u>_____</u> UPL species <u>_____</u> x 5 = <u>_____</u> Column Totals <u>_____</u> (A) <u>_____</u> (B) Prevalence Index = B/A = <u>_____</u>
1				
2				
3				
4				
				= Total Cover
Herb Stratum (Plot size <u>_____</u>)				Hydrophytic Vegetation Indicators: Dominance Test is >50% <u>_____</u> Prevalence Index is ≥ 3.0 <u>_____</u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Wetland Non-Vascular Plants <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain) <u>_____</u> ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	<u>D. glomerata</u>	<u>25</u>	<u>X</u> <u>FACU</u>	
2	<u>D. carota</u>	<u>35</u>	<u>X</u> <u>UPL</u>	
3	<u>F. rubra</u>	<u>30</u>	<u>X</u> <u>FAC</u>	
4	<u>L. vulgaris</u>	<u>25</u>	<u>X</u> <u>UPL</u>	
5	<u>Ranunculus</u>	<u>15</u>	<u>FACU</u>	
6	<u>H. radicata</u>	<u>5</u>	<u>FAC</u>	
7	<u>trifolium spp</u>	<u>5</u>	<u>FAC</u>	
8				
9				
10				
				= Total Cover <u>140</u>
Woody Vine Stratum (Plot size <u>_____</u>)				Hydrophytic Vegetation Present? Yes <u>_____</u> No <u>X</u>
1				
2				
				= Total Cover
% Bare Ground in Herb Stratum <u>_____</u>				
Remarks				

SOIL

Sampling Point: IB8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-13	10YR3/3	100%						Clay loam
>14	10YR5/2		10YR5/4	10%				Clay loam
			10YR4/6	80%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required):

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Mounds (D7)

Field Observations:

- Surface Water Present? Yes X No _____ Depth (inches): _____
- Water Table Present? Yes X No _____ Depth (inches): 6
- Saturation Present? Yes X No _____ Depth (inches): _____
- (includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site ADZ City/County PA CRAWFORD Sampling Date 3.18.10
 Applicant/Owner Moulson State PA Sampling Point IIAI
 Investigator(s) Smiley Section, Township, Range _____
 Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) UPLA Lat _____ Long _____ Datum _____
 Soil Map Unit Name Bellingham (4) NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC _____	(A)
2 _____				Total Number of Dominant Species Across All Strata _____	(B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC _____	(A/B)
4 _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:	
1 _____				Total % Cover of _____	Multiply by _____
2 _____				OBL species _____ x 1 = _____	
3 _____				FACW species _____ x 2 = _____	
4 _____				FAC species <u>15</u> x 3 = <u>45</u>	
5 _____				FACU species <u>10</u> x 4 = <u>40</u>	
				UPL species <u>100</u> x 5 = <u>500</u>	
				Column Totals <u>150</u> (A) <u>600</u> (B)	
				Prevalence Index = B/A = <u>4.3</u>	
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:	
1 <u>Doctylis glomerata</u>	<u>50</u>	<u>X</u>	<u>FACU</u>	___ Dominance Test is >50%	
2 <u>Daucus carota</u>	<u>40</u>	<u>X</u>	<u>UPL</u>	___ Prevalence Index is >3.0	
3 <u>Laracacum officinale</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	___ 'Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)	
4 <u>Trifolium spp</u>	<u>15</u>		<u>FAC</u>	___ Wetland Non-Vascular Plants	
5 <u>Leucanthemum vulgare</u>	<u>15</u>		<u>UPL</u>	___ Problematic Hydrophytic Vegetation (Explain)	
6 <u>Vicia hirsuta</u>	<u>10</u>		<u>UPL</u>	___ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 _____					
8 _____					
9 _____					
10 _____					
11 _____					
				= Total Cover	
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1 _____					
2 _____					
				= Total Cover	
% Bare Ground in Herb Stratum _____					
Remarks					

SOIL

Sampling Point: IIA1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth (inches)	Matrix		Redox Features				Texture	Remarks			
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²					
0-17	10YR 3/3	100%						loam			
18-19	10YR 3/3	95%	10YR 5/6	5%				clay loam			
20	10YR 5/2	50%	7.5YR 5/6	50%				FA clay			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) </td> <td style="vertical-align: top;"> <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) </td> <td style="vertical-align: top;"> <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks) </td> </tr> </table>									<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)									
Restrictive Layer (if present): Type: _____ Depth (inches): _____											
Hydric Soil Present? Yes _____ No <u>X</u>							³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
Remarks											

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>18"</u> (includes capillary fringe)		
Wetland Hydrology Present? Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <u>WATER TABLE @ 20" depth</u>		

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site AGZ City/County RA CUALAM Sampling Date IIA2
 Applicant/Owner MORRISON State _____ Sampling Point _____
 Investigator(s) BURGER Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) _____ Lat _____ Long _____ Datum _____
 Soil Map Unit Name Bellingham (4) NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks _____		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC <u>1</u> (A)
2 _____				Total Number of Dominant Species Across All Strata <u>2</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC <u>50%</u> (A/B)
4 _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:
1 _____				Total % Cover of: Multiply by
2 _____				OBL species _____ x 1 = _____
3 _____				FACW species _____ x 2 = _____
4 _____				FAC species <u>50</u> x 3 = <u>150</u>
5 _____				FACU species <u>15</u> x 4 = <u>60</u>
= Total Cover				UPL species <u>35</u> x 5 = <u>175</u>
				Column Totals <u>100</u> (A) <u>385</u> (B)
				Prevalence Index = B/A = <u>3.8</u>
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:
1 <u>FESTUCA RUBRA</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	___ Dominance Test is >50%
2 <u>DAUCUS CAROTA</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	___ Prevalence Index is ≥ 3.0 ¹
3 <u>HYPOCHAERIS RADICATA</u>	<u>15</u>		<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4 <u>TRIFOLIUM spp</u>	<u>15</u>		<u>FAC</u>	___ Wetland Non-Vascular Plants ¹
5 <u>PLANTAGO LANCEOLATA</u>	<u>15</u>		<u>FACU</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)
6 <u>LEUCANTHEMUM VULGARE</u>	<u>15</u>		<u>UPL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 _____				
8 _____				
9 _____				
10 _____				
11 _____				
= Total Cover <u>100</u>				
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1 _____				
2 _____				
= Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks _____				

Sampling Point: 1A2

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) | ³ Indicators of hydrophytic veget. |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) | wetland hydrology must be p |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | unless disturbed or problema |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

Remarks
Clay layer @ 24"
No real significant Δ in profile until 20" w/ more

HYDROLOGY *math*

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes No Depth (inches).

Water Table Present? Yes ☐ No ☒ Depth (inches): 15"

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County PACIAUAM Sampling Date IIA3
 Applicant/Owner Moulson State Sampling Point
 Investigator(s) Burfer Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%)
 Subregion (LRR) LRRA Lat Long Datum
 Soil Map Unit Name NWI classification none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u></u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u></u> No <u>X</u>
Hydric Soil Present?	Yes <u></u> No <u>X</u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>		
Remarks:			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1				Number of Dominant Species That Are OBL, FACW, or FAC	<u>1</u> (A)
2				Total Number of Dominant Species Across All Strata	<u>3</u> (B)
3				Percent of Dominant Species That Are OBL, FACW, or FAC	<u>33%</u> (A/B)
4					
				= Total Cover	
Sapling/Shrub Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1				Total % Cover of	Multiply by
2				OBL species	x 1 = <u>10</u>
3				FACW species	x 2 = <u>75</u>
4				FAC species	x 3 = <u>275</u>
5				FACU species	x 4 = <u>360</u>
				UPL species	x 5 = <u>360</u> (B)
				Column Totals:	<u>85</u> (A) <u>360</u> (B)
				Prevalence Index = B/A = <u>4.2</u>	
Herb Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1	<u>30</u>	<u>X</u>	<u>UPL</u>	___ Dominance Test is >50%	
2	<u>25</u>	<u>X</u>	<u>UPL</u>	___ Prevalence Index is ≤3.0 ¹	
3	<u>20</u>	<u>X</u>	<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4	<u>5</u>		<u>FACW</u>	___ Wetland Non-Vascular Plants ¹	
5	<u>5</u>		<u>FAC</u>	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
6				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7					
8					
9					
10					
11					
				= Total Cover <u>85</u>	
Woody Vine Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?	
1				Yes <u></u> No <u>X</u>	
2					
				= Total Cover	
% Bare Ground in Herb Stratum <u>5%</u>					
Remarks					

SOIL

Sampling Point: IIA3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-11	10YR3/3	100%						Loam
7-11	10YR5/2	70%	10YR4/6	30%				Clay Loam
Clay layer @ 2" consolidation								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (LRR A)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): 14"Water Table Present? Yes _____ No X Depth (inches): 14"Saturation Present? Yes X No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A27 City/County PA/CLAYTON Sampling Date IIA4
 Applicant/Owner MORRISON State PA Sampling Point 318-10
 Investigator(s) Smyley Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) LRA Lat _____ Long _____ Datum _____
 Soil Map Unit Name (4) NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks:		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC _____ (A)	
2 _____				Total Number of Dominant Species Across All Strata _____ (B)	
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC _____ (A/B)	
4 _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:	
1 _____				Total % Cover of _____ Multiply by _____	
2 _____				OBL species _____ x 1 = _____	
3 _____				FACW species _____ x 2 = _____	
4 _____				FAC species _____ x 3 = _____	
5 _____				FACU species _____ x 4 = _____	
				UPL species _____ x 5 = _____	
				Column Totals <u>115</u> (A) <u>475</u> (B)	
				Prevalence Index = B/A = <u>4.1</u>	
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:	
1 <u>LEUCANTHEMUM VULGARE</u>	<u>30</u>	<u>X</u>	<u>UPL</u>	___ Dominance Test is >50%	
2 <u>DOCTYLUS GLOMERATA</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	___ Prevalence Index is >3.0 ¹	
3 <u>DAUCUS CAROTA</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4 <u>TRIFOLIUM SPP</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	___ Wetland Non-Vascular Plants	
5 <u>TRIFOLIUM OFFICINALE</u>	<u>5</u>		<u>FACU</u>	___ Problematic Hydrophytic Vegetation (Explain)	
6 <u>PANUNCULUS SPP</u>	<u>5</u>		<u>FACU</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 _____					
8 _____					
9 _____					
10 _____					
11 _____					
				= Total Cover <u>115</u>	
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1 _____					
2 _____					
				= Total Cover	
% Bare Ground in Herb Stratum <u>20%</u>					
Remarks					

SOIL

Sampling Point: IIA4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-12	10YR 3/3	100%						WAM
>13"	10YR 5/2	60	10YR 4/6	40%				CLAY WAM
10-24"								CLAY

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): 17"

Water Table Present? Yes _____ No X Depth (inches): 16"

Saturation Present? Yes _____ No X Depth (inches): 16"

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A22 City/County: PA/CIAUAM Sampling Date: 3.18.10
 Applicant/Owner: Morrison State: _____ Sampling Point: IIA5
 Investigator(s): Rmyers Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): URRA Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: (4) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks:			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.1</u> (A/B)														
1. _____																		
2. _____																		
3. _____																		
4. _____																		
_____ = Total Cover				Prevalence Index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td></td> </tr> </tbody> </table> Prevalence Index = B/A = <u>4.8</u>	Total % Cover of:	Multiply by:	OBL species	x 1 =	FACW species	x 2 =	FAC species	x 3 =	FACU species	x 4 =	UPL species	x 5 =	Column Totals:	
Total % Cover of:	Multiply by:																	
OBL species	x 1 =																	
FACW species	x 2 =																	
FAC species	x 3 =																	
FACU species	x 4 =																	
UPL species	x 5 =																	
Column Totals:																		
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
_____ = Total Cover																		
Herb Stratum (Plot size: _____)																		
1. <u>LEUCANHEMUM VULGARE</u>	<u>40</u>	<u>X</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>DAUCUS CAROTA</u>	<u>30</u>	<u>X</u>	<u>UPL</u>															
3. <u>UICIA HIRSUTA</u>	<u>20</u>	<u>X</u>	<u>UPL</u>															
4. <u>HYPOCHAEICIS RAOICATA</u>	<u>15</u>		<u>FAC</u>															
5. <u>PLANTAGO LANCEOLATA</u>	<u>10</u>		<u>FACU</u>															
6. <u>DACTYLUS GLOMERATA</u>	<u>5</u>		<u>FACU</u>															
7. <u>RAUNCULUS spp</u>	<u>5</u>		<u>FACU</u>															
8. <u>TRIFOLIUM spp</u>	<u>5</u>		<u>FAC</u>															
9. _____																		
10. _____																		
11. _____																		
_____ = Total Cover																		
Woody Vine Stratum (Plot size: _____)																		
1. _____																		
2. _____																		
_____ = Total Cover																		
% Bare Ground in Herb Stratum <u>5%</u>																		
Remarks:																		

SOIL

Sampling Point: **IIAS**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-12	10YR 3/3	100%						loam
714	10YR 3/2	70%	10YR 5/6	30%				clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes ☒ No _____ Depth (inches): 8"Saturation Present? Yes ☒ No _____ Depth (inches): 6"
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: AGZ Ent. City/County: Clallam Sampling Date: IIA6
 Applicant/Owner: MORRISON State: _____ Sampling Point: 3-18-10
 Investigator(s): Amijis Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: (12) Clallam NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
 Hydric Soil Present? Yes _____ No X
 Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
= Total Cover			
Sapling/Shrub Stratum (Plot size _____)			
1			
2			
3			
4			
5			
= Total Cover			
Herb Stratum (Plot size _____)			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
= Total Cover			
Woody Vine Stratum (Plot size _____)			
1			
2			
= Total Cover			

% Bare Ground in Herb Stratum: 10%

Remarks:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of	Multiply by
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals	(A) <u>140</u> (B) <u>625</u>
Prevalence Index = B/A =	<u>4.4</u>

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
 ___ Prevalence Index is ≤3.0
 ___ "Morphological Adaptations" (Provide supporting data in Remarks or on a separate sheet)
 ___ Wetland Non-Vascular Plants
 ___ Problematic Hydrophytic Vegetation (Explain)
 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present?

Yes _____ No X

SOIL

Sampling Point: IIA6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/3	100%						WPM
13-15	10YR 3/3	80%	10YR 5/2	15%				CLAY LOAM
			10YR 5/6	5%				
7 1/2"	10YR 5/2	50%	10YR 5/6	50%				CLAY CLAY

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required, check all that apply)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	

Field Observations:

Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): <u>19"</u>	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): <u>17"</u>	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): <u>17"</u>	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date 3.18.19
 Applicant/Owner Morrison State WA Sampling Point IIA7
 Investigator(s) Amey Section, Township, Range _____
 Landform (hillslope terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) LRA Lat _____ Long _____ Datum _____
 Soil Map Unit Name (12) Clallam NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u> No _____	

Remarks

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 <u>Douglas fir saplings</u>	<u>1</u>		<u>UPL</u>	Number of Dominant Species That Are OBL, FACW, or FAC <u>0</u> (A)
2 _____				Total Number of Dominant Species Across All Strata <u>2</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC <u>0.1</u> (A/B)
4 _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:
1 _____				Total % Cover of _____ Multiply by _____
2 _____				OBL species _____ x 1 = _____
3 _____				FACW species _____ x 2 = _____
4 _____				FAC species _____ x 3 = _____
5 _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals _____ (A) _____ (B)
Herb Stratum (Plot size _____)				Prevalence Index = B/A = _____
1 <u>L. VULGAR</u>	<u>80</u>	<u>X</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is ≤ 3.0 _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Wetland Non-Vascular Plants _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2 <u>D. CAROTA</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	
3 <u>PLANTAGO LANCEOLATA</u>	<u>15</u>		<u>FACU</u>	
4 <u>FESTUCA RUBRA</u>	<u>15</u>		<u>FAC</u>	
5 <u>TRIFOLIUM SPP</u>	<u>10</u>		<u>FAC</u>	
6 _____				
7 _____				
8 _____				
9 _____				
10 _____				
11 _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1 _____				
2 _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20.1</u>				
Remarks				

SOIL

Sampling Point: IIA7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-9	10YR 3/3	100%						LOAM
9-10	10YR 5/2	80%	10YR 5/6	20%				CLAY/LOAM
712	10YR 6/2	60%	10YR 4/6	40%				CLAY

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Indicators for Problematic Hydric Soils ³ : <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Secondary Indicators (2 or more required) <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Anl Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
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Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 10"

Saturation Present? Yes X No _____ Depth (inches): 8"

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks:

Clay layer is higher here. Surrounding plot has pockets of water - upland dominate areas.

Higher water table.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date IIA8
 Applicant/Owner MORRISON State _____ Sampling Point _____
 Investigator(s) Bruce Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) LRA Lat _____ Long _____ Datum _____
 Soil Map Unit Name (12) Clallam NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are 'Normal Circumstances' present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC	<u>0</u> (A)
2 _____				Total Number of Dominant Species Across All Strata	_____ (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC	_____ (A/B)
4 _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size _____)					
1 _____				Prevalence Index worksheet:	
2 _____				Total % Cover of	Multiply by
3 _____				OBL species	x 1 = _____
4 _____				FACW species	x 2 = _____
5 _____				FAC species	x 3 = <u>30</u>
				FACU species	x 4 = <u>120</u>
				UPL species	x 5 = <u>350</u>
				Column Totals	<u>110</u> (A) <u>500</u> (B)
				Prevalence Index = B/A = <u>74.0</u>	
Herb Stratum (Plot size _____)					
1 <u>LEUCANTHEMUM VULGARE</u>	<u>60</u>	<u>X</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
2 <u>PLATAGO lanceolata</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	___ Dominance Test is >50%	
3 <u>DAUCUS CAROTA</u>	<u>10</u>		<u>UPL</u>	___ Prevalence Index is ≤30%	
4 <u>HYPOCHERIS radicata</u>	<u>5</u>		<u>FAC</u>	___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5 <u>FESTUCA RUBRA</u>	<u>5</u>		<u>FAC</u>	___ Wetland Non-Vascular Plants ¹	
6 _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7 _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8 _____					
9 _____					
10 _____					
11 _____					
				= Total Cover	
Woody Vine Stratum (Plot size _____)					
1 _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
2 _____					
				= Total Cover	
% Bare Ground in Herb Stratum <u>20</u>					
Remarks					

SOIL

Sampling Point: TLA8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹			
0-11	10YR5/3	100%					WAM	
712"	10YR6/2	70%	10YR5/6	30%			EACLAY	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): 17"

Water Table Present? Yes _____ No X Depth (inches): 17"

Saturation Present? Yes _____ No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: WATER TABLE @ below, within Clay layer

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County: Clallam Sampling Date: IBI
 Applicant/Owner Morrison State: _____ Sampling Point: 3.18.10
 Investigator(s) Buylers Section, Township, Range: _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%) _____
 Subregion (LRR) _____ Lat _____ Long _____ Datum _____
 Soil Map Unit Name _____ NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks:			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC.	<u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata	<u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC	<u>0.1</u> (A/B)
4. _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:	
1. _____				Total % Cover of:	Multiply by:
2. _____				OBL species	x 1 =
3. _____				FACW species	x 2 =
4. _____				FAC species	x 3 =
5. _____				FACU species	x 4 =
				UPL species	x 5 =
				Column Totals:	<u>160</u> (A) <u>6605</u> (B)
				Prevalence Index = B/A = <u>73.0</u>	
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:	
1. <u>Dactylis glomerata</u>	<u>60</u>	<u>X</u>	<u>FACU</u>	Dominance Test is >50%	
2. <u>Dactylis carota</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	Prevalence Index is ≤3.0 ¹	
3. <u>Leucanthemum vulgare</u>	<u>40</u>	<u>X</u>	<u>UPL</u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Trifolium spp</u>	<u>10</u>		<u>FAC</u>	Welland Non-Vascular Plants	
5. <u>Trifolium officinale</u>	<u>15</u>		<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
6. <u>Ranunculus spp</u>	<u>10</u>		<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
7. <u>Holcus lanatus</u>	<u>5</u>		<u>FAC</u>		
8. _____					
9. _____					
10. _____					
11. _____					
				= Total Cover	
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1. _____					
2. _____					
				= Total Cover	
% Bare Ground in Herb Stratum _____					
Remarks:					

Sampling Point: IB1

HYDROLOGY

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A02 City/County: Clallam Sampling Date: 11-22
 Applicant/Owner: Morrison State: _____ Sampling Point: 3-18
 Investigator(s): Smiley Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks:		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2 _____				Total Number of Dominant Species Across All Strata	<u>4</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>25%</u> (A/B)
4 _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:	
1 _____				Total % Cover of	Multiply by
2 _____				OBL species	x 1 = _____
3 _____				FACW species	x 2 = _____
4 _____				FAC species	x 3 = <u>90</u>
5 _____				FACU species	x 4 = <u>120</u>
				UPL species	x 5 = <u>200</u>
				Column Totals	<u>110</u> (A) <u>4100</u> (B)
				Prevalence Index = B/A = <u>73.0</u>	
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:	
1 <u>HOLCUS MOLIS</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	— Dominance Test is >50%	
2 <u>DAUCUS CAROTA</u>	<u>30</u>	<u>X</u>	<u>UPL</u>	— Prevalence Index is ≤3.0 ¹	
3 <u>LEUCANTHEMUM VULGARE</u>	<u>30</u>	<u>X</u>	<u>UPL</u>	— Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4 <u>TRIFOLIUM SP.</u>	<u>25</u>	<u>X</u>	<u>FAC</u>	— Wetland Non-Vascular Plants	
5 <u>PLANTAGO LANCEOLATA</u>	<u>10</u>		<u>FACU</u>	— Problematic Hydrophytic Vegetation (Explain)	
6 <u>VICIA ALBICATA</u>	<u>5</u>		<u>UPL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 <u>HYPOCHAEIRIS RADICATA</u>	<u>5</u>		<u>FAC</u>		
8 _____					
9 _____					
10 _____					
11 _____					
				= Total Cover <u>115</u>	
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
1 _____					
2 _____					
				= Total Cover	
% Bare Ground in Herb Stratum _____					
Remarks					

SOIL

Sampling Point: ILB2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-10	10YR 4/3	100%						Clay loam
>10	10YR 5/3	60%	10YR 5/6	40%				Clay

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date 3.18.10
 Applicant/Owner MORRISON State WA Sampling Point 1103
 Investigator(s) Amyers Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) _____ Lat _____ Long _____ Datum _____
 Soil Map Unit Name Bellingham (4) NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are 'Normal Circumstances' present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC <u>0</u> (A) Total Number of Dominant Species Across All Strata <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC <u>0.1</u> (A/B)
1 _____				
2 _____				
3 _____				
4 _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size _____)				
1 _____				
2 _____				
3 _____				
4 _____				
5 _____				
= Total Cover				
Herb Stratum (Plot size _____)				
1 <u>L. VULGARIS</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	
2 <u>D. GLOMERATA</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
3 <u>D. CAZOTA</u>	<u>15</u>		<u>FACU</u>	
4 <u>RANUNCULUS spp</u>	<u>15</u>		<u>FACU</u>	
5 <u>H. RADICATA</u>	<u>15</u>		<u>FAC</u>	
6 <u>HOLCUS LANATUS</u>	<u>5</u>		<u>FAC</u>	
7 <u>TRIFOLIUM spp</u>	<u>5</u>		<u>FAC</u>	
8 <u>V. HIRSUTA</u>	<u>5</u>		<u>UPL</u>	
9 _____				
10 _____				
11 _____				
<u>85</u> = Total Cover				
Woody Vine Stratum (Plot size _____)				
1 _____				
2 _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>5.1</u>				
Remarks				

Sampling Point: 11B3

HYDROLOGY

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County CLALLAM Sampling Date 3.18.10
 Applicant/Owner MORRISON State WA Sampling Point II B4
 Investigator(s) Smyley Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) URRA Lat _____ Long _____ Datum _____
 Soil Map Unit Name BEWINGHAM(4) NWI classification none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks _____		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC <u>1</u> (A) Total Number of Dominant Species Across All Strata <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC <u>25%</u> (A/B)																					
1 _____																									
2 _____																									
3 _____																									
4 _____																									
_____ = Total Cover				Prevalence index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of</th> <th>Multiply by</th> <th></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td>x 1 =</td> <td><u>5</u></td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> <td><u>30</u></td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> <td><u>30</u></td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> <td><u>80</u></td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> <td><u>70</u></td> </tr> <tr> <td>Column Totals</td> <td></td> <td><u>185</u> (A) <u>770</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>73.0</u>	Total % Cover of	Multiply by		OBL species	x 1 =	<u>5</u>	FACW species	x 2 =	<u>30</u>	FAC species	x 3 =	<u>30</u>	FACU species	x 4 =	<u>80</u>	UPL species	x 5 =	<u>70</u>	Column Totals		<u>185</u> (A) <u>770</u> (B)
Total % Cover of	Multiply by																								
OBL species	x 1 =	<u>5</u>																							
FACW species	x 2 =	<u>30</u>																							
FAC species	x 3 =	<u>30</u>																							
FACU species	x 4 =	<u>80</u>																							
UPL species	x 5 =	<u>70</u>																							
Column Totals		<u>185</u> (A) <u>770</u> (B)																							
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is >3.0' ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) ___ Wetland Non-Vascular Plants ___ Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																					
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover																									
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>																					
_____ = Total Cover																									
% Bare Ground in Herb Stratum _____																									
Remarks _____																									

TRH

[illegible]²Location. PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Depth (inches). _____

Hydric Soil Present? Yes _____ No X

Remarks

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (LRR A)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Saturation Present? Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes _____ No X

(Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available)

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A22 City/County: Clallam Sampling Date: 3.18.10
 Applicant/Owner: Morrison State: WA Sampling Point: 1185
 Investigator(s): Smiley Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Clallam (12) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species <u>35</u> x 3 = <u>105</u>
5. _____	_____	_____	_____	FACU species <u>10</u> x 4 = <u>40</u>
= Total Cover				UPL species <u>40</u> x 5 = <u>200</u>
				Column Totals: <u>145</u> (A) <u>385</u> (B)
				Prevalence Index = B/A = <u>4.0</u>
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>L. vulpina</u>	<u>40</u>	<u>X</u>	<u>UPL</u>	Dominance Test is >50%
2. <u>NANPEO LANCEOLATA</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	Prevalence Index is >3.0
3. <u>LESUCA RUBRA</u>	<u>25</u>	<u>X</u>	<u>FAC</u>	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>D. CAROTA</u>	<u>25</u>	<u>X</u>	<u>FACU</u>	Wetland Non-Vascular Plants ¹
5. <u>D. GLOMERATA</u>	<u>10</u>	_____	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <u>T. OFFICINALE</u>	<u>5</u>	_____	<u>FACU</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. <u>TRIFOLIUM SPP</u>	<u>10</u>	_____	<u>FAC</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover <u>145</u>				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>5%</u>				

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Sampling Point: HLR5

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-11	10YR5/3	100						
12	10YR5/3	7.5	5YR5/6	40				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Remarks: _____

Hydric Soil Present? Yes _____ No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (2 or more required) <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
---	---	---

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): 110"

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A22 City/County: Clallam Sampling Date: II 66
 Applicant/Owner: Mellison State: _____ Sampling Point: 3.18.10
 Investigator(s): Rmyers Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Clallam (12) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC	<u>2</u> (A)
2 _____				Total Number of Dominant Species Across All Strata	<u>3</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC	<u>66.7</u> (A/B)
4 _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:	
1 _____				Total % Cover of	Multiply by
2 _____				OBL species	x 1 = _____
3 _____				FACW species	x 2 = _____
4 _____				FAC species	x 3 = _____
5 _____				FACU species	x 4 = _____
				UPL species	x 5 = _____
				Column Totals	(A) _____ (B) _____
				Prevalence Index = B/A = _____	
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:	
1 <u>Festuca rubra</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	<u>X</u> Dominance Test is >50%	
2 <u>D. glomerata</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	Prevalence Index is ≤ 30'	
3 <u>Parthenoclas spp.</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	
4 <u>D. carota</u>	<u>10</u>		<u>FACU</u>	Wetland Non-Vascular Plants	
5 <u>H. radicata</u>	<u>10</u>		<u>FAC</u>	Problematic Hydrophytic Vegetation (Explain)	
6 <u>TRIFOLIUM spp</u>	<u>5</u>		<u>FAC</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 _____					
8 _____					
9 _____					
10 _____					
11 _____					
				= Total Cover	
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
1 _____					
2 _____					
				= Total Cover	
% Bare Ground in Herb Stratum _____					
Remarks					

Sampling Point: IIb

HYDROLOGY

Western Mountains, Valleys, and Coast – Interim Version

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A22 City/County: Clallam Sampling Date: II 17
 Applicant/Owner: Morrison State: _____ Sampling Point: 3.18.10
 Investigator(s): Smyle Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): _____ Slope (%): 5%
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Clallam (12) NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC <u>1</u> (A)
2 _____				Total Number of Dominant Species Across All Strata <u>3</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC <u>33%</u> (A/B)
4 _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:
1 _____				Total % Cover of _____ Multiply by _____
2 _____				OBL species _____ x 1 = _____
3 _____				FACW species _____ x 2 = <u>75</u>
4 _____				FAC species <u>25</u> x 3 = <u>75</u>
5 _____				FACU species <u>25</u> x 4 = <u>100</u>
= Total Cover				UPL species <u>30</u> x 5 = <u>150</u>
				Column Totals <u>80</u> (A) <u>325</u> (B)
				Prevalence Index = B/A = <u>7.3</u>
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:
1 <u>HYPOCHAERIS RADICATA</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	___ Dominance Test is >50%
2 <u>LEUCANTHEMUM VULGARE</u>	<u>25</u>	<u>X</u>	<u>UPL</u>	___ Prevalence Index is >3.0
3 <u>P. lanceolata</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	___ 'Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
4 <u>D. CAROTA</u>	<u>5</u>		<u>UPL</u>	___ Wetland Non-Vascular Plants
5 <u>TRIFOLIUM SPP</u>	<u>5</u>		<u>FAC</u>	___ Problematic Hydrophytic Vegetation (Explain)
6 <u>D. QUINERATA</u>	<u>5</u>		<u>FACU</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 _____				
8 _____				
9 _____				
10 _____				
11 _____				
= Total Cover <u>80</u>				
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1 _____				
2 _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>20%</u>				
Remarks				

SOIL

Sampling Point: **II B7**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-7	10YR 4/4		10YR 6/1					
7-11	10YR 5/3		7.5YR 4/4	30.1				
7-11	10YR 5/3		10YR 5/6					

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No **X**

Remarks

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____

Water Table Present? Yes _____ No **X** Depth (inches): **110"**

Saturation Present? Yes _____ No **X** Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks: **Plot on an elevated rise (hump)**

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: E A22 City/County: Clallam Sampling Date: ITAL
 Applicant/Owner: NWRA State: _____ Sampling Point: 3.18.10
 Investigator(s): Smiles Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat Slope (%): 5%
 Subregion (LRR): BURRA Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: BUNNINGHAM (4) NWI classification: rule
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks:			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
1				
2				
3				
4				
= Total Cover				Prevalence Index worksheet: Total % Cover of _____ Multiply by _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
= Total Cover				
= Total Cover				
= Total Cover				
Herb Stratum (Plot size _____) 1 <u>Festuca rubra</u> <u>25</u> <u>X</u> <u>FAC</u> 2 <u>Hypochaeris radicata</u> <u>20</u> <u>X</u> <u>FAC</u> 3 <u>Ranunculus spp</u> <u>20</u> <u>X</u> <u>FACW</u> 4 <u>D. caerulea</u> <u>20</u> <u>X</u> <u>FACU</u> 5 <u>T. officinale</u> <u>10</u> _____ <u>FACU</u> 6 <u>Plantago lanceolata</u> <u>5</u> _____ <u>FACU</u> 7 <u>Trifolium spp</u> <u>5</u> _____ <u>FAC</u> 8 <u>D. glomerata</u> <u>5</u> _____ <u>FACU</u> 9 _____ 10 _____ 11 _____ = Total Cover				
Woody Vine Stratum (Plot size _____) 1 _____ 2 _____ = Total Cover				
% Bare Ground in Herb Stratum: _____ Remarks:				

SOIL

Sampling Point: UAI

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR3/3		10YR3/4	10%				
			10YR4/6	5%				
>10	4YR5/3		10YR4/6	20%				
			10YR5/6	30%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D6)
- ☐ Raised Ant Mounds (D6) (LRR A)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 7"

Saturation Present? Yes X No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Just west of sheet flow from ditch

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A22 City/County: Clallam Sampling Date: 3.18.10
 Applicant/Owner: MORRISON State: _____ Sampling Point: IIA2
 Investigator(s): Bmyls Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): HBRA Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks:			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC	<u>1</u> (A)
2 _____				Total Number of Dominant Species Across All Strata	<u>1</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC	<u>100%</u> (A/B)
4 _____					
				= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)					
1 _____				Prevalence Index worksheet:	
2 _____				Total % Cover of	Multiply by
3 _____				OBL species	x 1 =
4 _____				FACW species	x 2 = <u>70</u>
5 _____				FAC species	x 3 = <u>60</u>
				FACU species	x 4 = <u>100</u>
				UPL species	x 5 = <u>25</u>
				Column Totals	<u>70</u> (A) <u>255</u> (B)
				Prevalence Index = B/A = <u>43</u>	
Herb Stratum (Plot size _____)					
1 <u>Echinochloa crusgalli</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators:	
2 <u>Festuca rubra</u>	<u>15</u>		<u>FAC</u>	<u>X</u> Dominance Test is >50%	
3 <u>Ranunculus spp</u>	<u>15</u>		<u>FACU</u>	Prevalence Index is ≤3.0	
4 <u>Taraxacum officinale</u>	<u>5</u>		<u>FACU</u>	"Morphological Adaptations" (Provide supporting data in Remarks or on a separate sheet)	
5 <u>Hypochaeris radicata</u>	<u>5</u>		<u>FAC</u>	Wetland Non-Vascular Plants	
6 <u>Plantago lanceolata</u>	<u>5</u>		<u>FACU</u>	Problematic Hydrophytic Vegetation (Explain)	
7 <u>L. Vulgaris</u>	<u>5</u>		<u>UPL</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
8 _____					
9 _____					
10 _____					
11 _____					
				= Total Cover	
Woody Vine Stratum (Plot size _____)					
1 _____				Hydrophytic Vegetation Present?	
2 _____				Yes <u>X</u> No _____	
				= Total Cover	
% Bare Ground in Herb Stratum _____					
Remarks					

SOIL

Sampling Point: IIA2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-12	10YR5/3		10YR4/6	15%				
7-12	10YR5/2		10YR4/6	20%				clay
			10YR5/6	20%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1) (except MLRA 1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks

Soils w/ a grey sheen close to 3/2

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Other (Explain in Remarks)
☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches): _____Water Table Present? Yes ☒ No ☐ Depth (inches): 4"Saturation Present? Yes ☒ No ☐ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: A22 City/County: CLALLAM Sampling Date: 3.18.10
 Applicant/Owner: MORRISON State: WA Sampling Point: IIA3
 Investigator(s): R. Myers Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): LBPA Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Bellingham (4) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks:		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.1</u> (A/B)
1				
2				
3				
4				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of _____ Multiply by _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size _____) 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ _____ = Total Cover				
Herb Stratum (Plot size _____) 1 <u>L. Vulgare</u> <u>40</u> <u>X</u> <u>UPL</u> 2 <u>D. CAROTA</u> <u>20</u> <u>X</u> <u>FACU</u> 3 <u>PLANTAGO lanceolata</u> <u>15</u> <u></u> <u>FACU</u> 4 <u>Festuca rubra</u> <u>10</u> <u></u> <u>FAC</u> 5 <u>H. RADICATA</u> <u>5</u> <u></u> <u>FAC</u> 6 <u>Vicia hirsuta</u> <u>5</u> <u></u> <u>UPL</u> 7 <u>D. glomerata</u> <u>5</u> <u></u> <u>FACU</u> 8 _____ 9 _____ 10 _____ 11 _____ _____ = Total Cover				
Woody Vine Stratum (Plot size _____) 1 _____ 2 _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>15%</u>				

Remarks: Outside "Greener", Higher Stock Stand
Visually Apparent

SOIL

Sampling Point

IIIA3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-12	10YR3/3	100	1					
>12	10YR5/2		10YR5/6	7.1				clay
			10YR4/4	3.1				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Frost-Heave Hummocks (D7) |

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): 17"Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks

Slight increase in elevation here from the eastern, adjacent landform.

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County CLALLAM Sampling Date III/4
 Applicant/Owner MORRISON State WA Sampling Point
 Investigator(s) Smiley Section, Township, Range
 Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none) Slope (%) 5%
 Subregion (LRR) URRA Lat Long Datum
 Soil Map Unit Name Bellingham (4) NWL classification none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u></u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u></u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks <u>H₂O @ 12" w/ saturation.</u>		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
= Total Cover			

Sapling/Shrub Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
3			
4			
5			
= Total Cover			

Herb Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status
1	30	X	FACU
2	20	X	FAC
3	20	X	UPL
4	20	X	FACU
5	5		UPL
6	10		FAC
7	5		FACU
8	10		FACU
9	10		FAC
10			
11			
= Total Cover			

Woody Vine Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status
1			
2			
= Total Cover			

% Bare Ground in Herb Stratum 5%

Remarks	
---------	--

SOIL

Sampling Point

IIIA4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-10	10YR 5/3	100	10YR 5/3	100				
7 1/2"	10YR 5/3		10YR 5/6	30				CLAY

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes ☒ No _____ Depth (inches): 12"Saturation Present? Yes ☒ No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County CLALLAM Sampling Date 3.18.10
 Applicant/Owner MORRISON State WA Sampling Point 11A5
 Investigator(s) Smiley Section, Township, Range _____
 Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none) _____ Slope (%) 5%
 Subregion (LRR) LBPA Lat _____ Long _____ Datum _____
 Soil Map Unit Name Clallam (12) NWI classification One
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks:		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.1</u> (A/B)
1 _____				
2 _____				
3 _____				
4 _____				
= Total Cover				Prevalence Index worksheet: Total % Cover of _____ Multiply by _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
= Total Cover				
= Total Cover				
= Total Cover				
Herb Stratum (Plot size _____)				
1 <u>D. glomerata</u>	<u>45</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: Dominance Test is >50% _____ Prevalence Index is <3.0' _____ Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) _____ Wetland Non-Vascular Plants _____ Problematic Hydrophytic Vegetation (Explain) _____ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
2 <u>DAUCUS CAROTA</u>	<u>25</u>	<u>X</u>	<u>UPL</u>	
3 <u>LEUCANTHEMUM VULGARE</u>	<u>25</u>	<u>X</u>	<u>UPL</u>	
4 <u>F. RUBRA</u>	<u>15</u>		<u>FAC</u>	
5 <u>RANUNCULUS spp</u>	<u>10</u>		<u>FACW</u>	
6 <u>TRIFOLIUM spp</u>	<u>10</u>		<u>FAC</u>	
7 <u>PLANTAGOLANCEOLATA</u>	<u>15</u>		<u>FACU</u>	
8 <u>Vicia hirsuta</u>	<u>10</u>		<u>UPL</u>	
9 _____				
10 _____				
11 _____				
= Total Cover				
Woody Vine Stratum (Plot size _____)				
1 _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2 _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>15.1</u>				
Remarks				

SOIL

Sampling Point: IIA5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-12	10YR5/3	100	10YR5/3	100			Clay loam
713	10YR5/2		10YR5/6	100			Clay

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required, check all that apply)	Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 11

Saturation Present? Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date 3.18.10
 Applicant/Owner Morrison State WA Sampling Point IIA6
 Investigator(s) Bruers Section, Township, Range _____
 Landform (hillslope, terrace, etc.) terraced Local relief (concave, convex, none) flat Slope (%) 5%
 Subregion (LRR) LRA Lat _____ Long _____ Datum _____
 Soil Map Unit Name Clallam NWI classification none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC <u>0</u> (A)
2 _____				Total Number of Dominant Species Across All Strata _____ (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC _____ (A/B)
4 _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1 _____				Total % Cover of _____ Multiply by _____
2 _____				OBL species _____ x 1 = _____
3 _____				FACW species _____ x 2 = _____
4 _____				FAC species _____ x 3 = _____
5 _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals _____ (A) _____ (B)
Herb Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index = B/A = _____
1 <u>L. VULGARE</u>	<u>30</u>	<u>X</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Wetland Non-Vascular Plants _____ Problematic Hydrophytic Vegetation ² (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
2 <u>P. lanceolata</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
3 <u>TRIFOLIUM spp</u>	<u>15</u>		<u>FAC</u>	
4 <u>D. carota</u>	<u>5</u>		<u>UPL</u>	
5 <u>V. hirsuta</u>	<u>5</u>		<u>UPL</u>	
6 <u>T. officinale</u>	<u>5</u>		<u>FACU</u>	
7 _____				
8 _____				
9 _____				
10 _____				
11 _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1 _____				
2 _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>15%</u>				
Remarks				

SOIL

Sampling Point: **IIIAC6**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-8	10YR 5/3		10YR 5/3 7%					
8-9	10YR 5/3		10YR 5/6 10%					
			10YR 4/6 20%					

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soils slightly lighter @ 3/3 due to mottles. Closer to 3/4.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Secondary Indicators (2 or more required)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): 18"

Water Table Present? Yes ☐ No ☒ Depth (inches): 18"

Saturation Present? Yes ☐ No ☒ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date III B1
 Applicant/Owner MORRISON State WA Sampling Point
 Investigator(s) Amey Section, Township, Range
 Landform (hillslope, terrace, etc.) Local relief (concave, convex, none) Slope (%)
 Subregion (LRR) Lat Long Datum
 Soil Map Unit Name NWI classification
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes K No (If no, explain in Remarks)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No K
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u></u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u></u>
Hydric Soil Present?	Yes <u>X</u>	No <u></u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u></u>			
Remarks:					

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 <u></u>				Number of Dominant Species That Are OBL, FACW, or FAC	<u>3</u> (A)
2 <u></u>				Total Number of Dominant Species Across All Strata	<u>4</u> (B)
3 <u></u>				Percent of Dominant Species That Are OBL, FACW, or FAC	<u>75%</u> (A/B)
4 <u></u>					
				= Total Cover	
Sapling/Shrub Stratum (Plot size <u></u>)				Prevalence Index worksheet:	
1 <u></u>				Total % Cover of	Multiply by
2 <u></u>				OBL species	x 1 =
3 <u></u>				FACW species	x 2 =
4 <u></u>				FAC species	x 3 =
5 <u></u>				FACU species	x 4 =
				UPL species	x 5 =
				Column Totals	(A) (B)
				Prevalence Index = B/A =	
Herb Stratum (Plot size <u></u>)				Hydrophytic Vegetation Indicators:	
1 <u>Ranunculus spp</u>	<u>40</u>	<u>K</u>	<u>FACW</u>	___ Dominance Test is >50%	
2 <u>Festuca rubra</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	___ Prevalence Index is >3.0	
3 <u>Sparganium angustifolium</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	
4 <u>Vicia hirsuta</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	___ Wetland Non-Vascular Plants	
5 <u>L. vulgaris</u>	<u>15</u>		<u>UPL</u>	___ Problematic Hydrophytic Vegetation (Explain)	
6 <u>Trifolium spp</u>	<u>10</u>		<u>FAC</u>	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 <u></u>					
8 <u></u>					
9 <u></u>					
10 <u></u>					
11 <u></u>					
				= Total Cover	
Woody Vine Stratum (Plot size <u></u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u></u>	
1 <u></u>					
2 <u></u>					
				= Total Cover	
% Bare Ground in Herb Stratum <u></u>					
Remarks					

Sampling Point: III B1

HYDROLOGY

Western Mountains, Valleys, and Coast – Interim Version

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date III B2
 Applicant/Owner Morrison State _____ Sampling Point _____
 Investigator(s) Smiley Section, Township, Range: _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) _____ Lat _____ Long _____ Datum _____
 Soil Map Unit Name _____ NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks:		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)														
1																		
2																		
3																		
4																		
_____ = Total Cover				Prevalence Index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of</th> <th>Multiply by</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td>x 1 =</td></tr> <tr><td>FACW species</td><td><u>15</u> x 2 = <u>30</u></td></tr> <tr><td>FAC species</td><td><u>35</u> x 3 = <u>105</u></td></tr> <tr><td>FACU species</td><td><u>5</u> x 4 = <u>20</u></td></tr> <tr><td>UPL species</td><td><u>25</u> x 5 = <u>125</u></td></tr> <tr><td>Column Totals</td><td><u>90</u> (A) <u>330</u> (B)</td></tr> </tbody> </table> Prevalence Index = B/A = <u>3.6</u>	Total % Cover of	Multiply by	OBL species	x 1 =	FACW species	<u>15</u> x 2 = <u>30</u>	FAC species	<u>35</u> x 3 = <u>105</u>	FACU species	<u>5</u> x 4 = <u>20</u>	UPL species	<u>25</u> x 5 = <u>125</u>	Column Totals	<u>90</u> (A) <u>330</u> (B)
Total % Cover of	Multiply by																	
OBL species	x 1 =																	
FACW species	<u>15</u> x 2 = <u>30</u>																	
FAC species	<u>35</u> x 3 = <u>105</u>																	
FACU species	<u>5</u> x 4 = <u>20</u>																	
UPL species	<u>25</u> x 5 = <u>125</u>																	
Column Totals	<u>90</u> (A) <u>330</u> (B)																	
Sapling/Shrub Stratum (Plot size _____)																		
1																		
2																		
3																		
4																		
5																		
_____ = Total Cover																		
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤ 3.0 _____ "Morphological Adaptations" (Provide supporting data in Remarks or on a separate sheet) _____ Wetland Non-Vascular Plants _____ Problematic Hydrophytic Vegetation (Explain) _____ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1 <u>Hypochaeris radicata</u>	<u>15</u>		<u>FAC</u>															
2 <u>Echinochloa crusgalli</u>	<u>15</u>		<u>FACW</u>															
3 <u>Trifolium spp</u>	<u>15</u>		<u>FAC</u>															
4 <u>Vicia hirsuta</u>	<u>10</u>		<u>UPL</u>															
5 <u>T. officinale</u>	<u>5</u>		<u>FACU</u>															
6 <u>D. carota</u>	<u>5</u>		<u>UPL</u>															
7 <u>Festuca rubra</u>	<u>5</u>		<u>FAC</u>															
8 <u>Leucanthemum vulgare</u>	<u>20</u>	<u>X</u>	<u>UPL</u>															
9																		
10																		
11																		
<u>90</u> = Total Cover																		
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>														
1																		
2																		
_____ = Total Cover																		
% Bare Ground in Herb Stratum <u>15.1</u>	_____ = Total Cover																	
Remarks																		

SOIL

Sampling Point: III B2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/3	100%						
7-11	10YR 5/3		10YR 4/10	15%				
			10YR 4/4	3%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated and Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): _____Water Table Present? Yes X No _____ Depth (inches): 9Saturation Present? Yes X No _____ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County CLALLAM Sampling Date III B3
 Applicant/Owner Moulson State WA Sampling Point 1
 Investigator(s) Amey Section, Township, Range
 Landform (hillslope, terrace, etc.) Local relief (concave, convex, none) Slope (%)
 Subregion (LRR) URRA Lat Long Datum
 Soil Map Unit Name BEUINGHAM (4) NWI classification none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation Soil or Hydrology significantly disturbed? Are 'Normal Circumstances' present? Yes No X
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>		
Remarks <u> </u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC	<u>2</u> (A)
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata	<u>4</u> (B)
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC	<u>50%</u> (A/B)
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u> </u> = Total Cover					
Sapling/Shrub Stratum (Plot size <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of	Multiply by
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species	x 1 = <u> </u>
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species	x 2 = <u> </u>
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species	x 3 = <u> </u>
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species	x 4 = <u> </u>
<u> </u> = Total Cover				UPL species	x 5 = <u> </u>
				Column Totals	<u>120</u> (A) <u>300</u> (B)
				Prevalence Index = B/A = <u>2.5</u>	
Herb Stratum (Plot size <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1 <u>Holcus lanatus</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	<u>X</u> Dominance Test is >50%	
2 <u>Dactylis glomerata</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	<u>X</u> Prevalence Index is ≥ 3.0	
3 <u>Echinochloa crusgali</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	<u> </u> 'Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)	
4 <u>Ranunculus spp</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	<u> </u> 'Welland Non-Vascular Plants'	
5 <u>Vicia hirsuta</u>	<u>20</u>	<u>X</u>	<u>UPL</u>	<u> </u> 'Problematic Hydrophytic Vegetation' (Explain)	
6 <u>Trifolium spp</u>	<u>15</u>	<u> </u>	<u>FAC</u>	<u> </u> 'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.'	
7 <u>D. caerulea</u>	<u>10</u>	<u> </u>	<u>UPL</u>		
8 <u>Festuca rubra</u>	<u>5</u>	<u> </u>	<u>FAC</u>		
9 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
11 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>120</u> = Total Cover					
Woody Vine Stratum (Plot size <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u> </u> = Total Cover					
% Bare Ground in Herb Stratum <u> </u>					
Remarks <u> </u>					

SOIL

Sampling Point: III B3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-13	10YR 3/2		10YR 5/2	1:1				
			10YR 4/6	1:1				
7-14	10YR 5/2		10YR 4/4	3:1				
			10YR 5/6	10:1				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 11"Saturation Present? Yes X No _____ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date 11/04
 Applicant/Owner Moderison State WA Sampling Point
 Investigator(s) Ameyers Section, Township, Range
 Landform (hillslope, terrace, etc.) Local relief (concave, convex, none) Slope (%)
 Subregion (LRR): Lat Long Datum
 Soil Map Unit Name NWI classification
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No k
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u></u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u></u>
Hydric Soil Present?	Yes <u>X</u> No <u></u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u></u>	
Remarks:		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u></u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC <u>1</u> (A) Total Number of Dominant Species Across All Strata <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC <u>100%</u> (A/B)														
1																		
2																		
3																		
4																		
= Total Cover				Prevalence Index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of</th> <th>Multiply by</th> </tr> </thead> <tbody> <tr><td>OBL species</td><td>x 1 =</td></tr> <tr><td>FACW species</td><td>x 2 = <u>50</u></td></tr> <tr><td>FAC species</td><td>x 3 = <u>10</u></td></tr> <tr><td>FACU species</td><td>x 4 = <u>10</u></td></tr> <tr><td>UPL species</td><td>x 5 = <u>10</u></td></tr> <tr><td>Column Totals</td><td><u>80</u> (A) <u>220</u> (B)</td></tr> </tbody> </table> Prevalence Index = B/A = <u>2.75</u>	Total % Cover of	Multiply by	OBL species	x 1 =	FACW species	x 2 = <u>50</u>	FAC species	x 3 = <u>10</u>	FACU species	x 4 = <u>10</u>	UPL species	x 5 = <u>10</u>	Column Totals	<u>80</u> (A) <u>220</u> (B)
Total % Cover of	Multiply by																	
OBL species	x 1 =																	
FACW species	x 2 = <u>50</u>																	
FAC species	x 3 = <u>10</u>																	
FACU species	x 4 = <u>10</u>																	
UPL species	x 5 = <u>10</u>																	
Column Totals	<u>80</u> (A) <u>220</u> (B)																	
= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u></u>) 1 <u></u> 2 <u></u> 3 <u></u> 4 <u></u> 5 <u></u> = Total Cover																		
Herb Stratum (Plot size: <u></u>) 1 <u>Echinochloa crusgalli</u> <u>40</u> <u>X</u> <u>FACW</u> 2 <u>Lactylis glomerata</u> <u>10</u> <u></u> <u>FACW</u> 3 <u>Trifolium spp</u> <u>10</u> <u></u> <u>FAC</u> 4 <u>Ranunculus spp</u> <u>10</u> <u></u> <u>FACW</u> 5 <u>Daucus carota</u> <u>5</u> <u></u> <u>FACU</u> 6 <u>Vicia hirsuta</u> <u>5</u> <u></u> <u>UPL</u> 7 <u></u> 8 <u></u> 9 <u></u> 10 <u></u> 11 <u></u> = Total Cover																		
Woody Vine Stratum (Plot size: <u></u>) 1 <u></u> 2 <u></u> = Total Cover																		
% Bare Ground in Herb Stratum <u></u>																		
Remarks																		

SOIL

Sampling Point: IIIB4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type	Loc ²		
0-13	10YR 2/2		10YR 5/3	1%				
			10YR 4/6	3%				
7-14	10YR 5/3		10YR 4/6	20%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 2Saturation Present? Yes X No _____ Depth (inches): 0

(includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Clallam Sampling Date 3.18.10
 Applicant/Owner MORRISON State WA Sampling Point III B5
 Investigator(s) BRUYER Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) _____ Lat _____ Long _____ Datum _____
 Soil Map Unit Name clallum (12) NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks _____		

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC <u>1</u> (A)
2 _____				Total Number of Dominant Species Across All Strata <u>1</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC <u>100</u> (A/B)
4 _____				
				= Total Cover
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:
1 _____				Total % Cover of _____ Multiply by _____
2 _____				OBL species <u>55</u> x 1 = <u>55</u>
3 _____				FACW species <u>25</u> x 2 = <u>50</u>
4 _____				FAC species <u>20</u> x 3 = <u>60</u>
5 _____				FACU species <u>5</u> x 4 = <u>20</u>
				UPL species <u>90</u> x 5 = <u>450</u>
				Column Totals <u>90</u> (A) <u>210</u> (B)
				Prevalence Index = B/A = <u>2.3</u>
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:
1 <u>Echinochloa crusgalli</u>	<u>40</u>	<u>X</u>	<u>FACW</u>	Dominance Test is >50% _____
2 <u>Ranunculus spp</u>	<u>15</u>		<u>FACW</u>	Prevalence Index is ≤3.0' _____
3 <u>E. RUBRA</u>	<u>15</u>		<u>FAC</u>	Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) _____
4 <u>Trifolium spp</u>	<u>10</u>		<u>FAC</u>	Wetland Non-Vascular Plants _____
5 <u>Vicia hirsuta</u>	<u>5</u>		<u>UPL</u>	Problematic Hydrophytic Vegetation' (Explain) _____
6 _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 _____				
8 _____				
9 _____				
10 _____				
11 _____				
				= Total Cover
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1 _____				
2 _____				
				= Total Cover
% Bare Ground in Herb Stratum _____				
Remarks _____				

SOIL

Sampling Point: III B5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-8	10YR 5/2		10YR 4/6	7:1			leg. loam
>8	10YR 5/2		10YR 4/6 10YR 6/4	3:1			loam clay

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Type _____	
Depth (inches): _____	
Remarks	

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required, check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>6</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks		

SAMPLE POINTS SP SAMPLE POINTS SP SAMPLE POINTS SP SAMPLE POINTS

Project/Site Flax City/County Clallam Sampling Date 3.19.10
Applicant/Owner Morrison State _____ Sampling Point SPI
Investigator(s) Smiley Section, Township, Range: _____
Landform (hill/slope, terrace, etc.) terrace Local relief (concave, convex, none) _____ Slope (%) 5%
Subregion (LRR) URRA Lat _____ Long _____ Datum _____
Soil Map Unit Name Bellingham (12) NWI classification none
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

Hydrophytic Vegetation Present? Yes X No

Hydric Soil Present? Yes X No

Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? Yes X No

VEGETATION – Use scientific names of plants.

Western Mountains, Valleys, and Coast – Interim Version

Sampling Point: 2P

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils²

- 2 cm Muck (A10)
 — Red Parent Material (TF2)
 — Other (Explain in Remarks)

¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Depth (inches). _____

Hydric Soil Present? Yes X No

Remarks

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

- | | | |
|---|---|---|
| ___ Surface Water (A1) | ___ Water-Stained Leaves (B9) (except MLRA | ___ Water-Stained Leaves (B9) (MLRA 1, 2, |
| ___ High Water Table (A2) | ___ 1, 2, 4A, and 4B) | ___ 4A, and 4B) |
| ___ Saturation (A3) | ___ Salt Crust (B11) | ___ Drainage Patterns (B10) |
| ___ Water Marks (B1) | ___ Aquatic Invertebrates (B13) | ___ Dry-Season Water Table (C2) |
| ___ Sediment Deposits (B2) | ___ Hydrogen Sulfide Odor (C1) | ___ Saturation Visible on Aerial Imagery (C9) |
| ___ Drift Deposits (B3) | ___ Oxidized Rhizospheres along Living Roots (C3) | ___ Geomorphic Position (D2) |
| ___ Algal Mat or Crust (B4) | ___ Presence of Reduced Iron (C4) | ___ Shallow Aquitard (D3) |
| ___ Iron Deposits (B5) | ___ Recent Iron Reduction in Tilled Soils (C6) | ___ FAC-Neutral Test (D5) |
| ___ Surface Soil Cracks (B6) | ___ Stunted or Stressed Plants (D1) (LRR A) | ___ Raised Ant Mounds (D6) (LRR A) |
| ___ Inundation Visible on Aerial Imagery (B7) | ___ Other (Explain in Remarks) | ___ Frost-Heave Hummocks (D7) |
| ___ Sparsely Vegetated Concave Surface (B8) | | |

Surface Water Present? Yes X No Depth (inches):
Water Table Present? Yes X No Depth (inches): 3
Saturation Present? Yes X No Depth (inches):
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site AZZ City/County Clallam Sampling Date 3.19.10
 Applicant/Owner Morrison State WA Sampling Point SPA
 Investigator(s) Rumley Section, Township, Range _____
 Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none) _____ Slope (%) _____
 Subregion (LRR) _____ Lat _____ Long _____ Datum _____
 Soil Map Unit Name _____ NWI classification _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____ Soil _____ or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks _____	

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1 _____				Number of Dominant Species That Are OBL, FACW, or FAC <u>3</u> (A)
2 _____				Total Number of Dominant Species Across All Strata <u>4</u> (B)
3 _____				Percent of Dominant Species That Are OBL, FACW, or FAC <u>75%</u> (A/B)
4 _____				
				= Total Cover
Sapling/Shrub Stratum (Plot size _____)				Prevalence Index worksheet:
1 _____				Total % Cover of _____ Multiply by _____
2 _____				OBL species _____ x 1 = _____
3 _____				FACW species _____ x 2 = _____
4 _____				FAC species _____ x 3 = _____
5 _____				FACU species _____ x 4 = _____
				UPL species _____ x 5 = _____
				Column Totals _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size _____)				Hydrophytic Vegetation Indicators:
1 <u>D. glomerata</u>	<u>40</u>	<u>X</u>	<u>FACU</u>	— Dominance Test is >50%
2 <u>Festuca rubra</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	— Prevalence Index is ≥ 0.1
3 <u>Samolus spp</u>	<u>30</u>	<u>X</u>	<u>FACW</u>	— 'Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
4 <u>H. lanatus</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	— Wetland Non-Vascular Plants
5 <u>Hyperbaeris radicate</u>	<u>10</u>		<u>FAC</u>	— Problematic Hydrophytic Vegetation (Explain)
6 <u>Phileum pratense</u>	<u>5</u>		<u>FACU</u>	— Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7 <u>Rumex crispus</u>	<u>5</u>		<u>FACU</u>	
8 _____				
9 _____				
10 _____				
11 _____				
				= Total Cover
Woody Vine Stratum (Plot size _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1 _____				
2 _____				
				= Total Cover
% Bare Ground in Herb Stratum _____				
Remarks _____				

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-15	10YR 3/2		10YR 4/6	7%				Clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____Hydric Soil Present? Yes X No _____

Remarks

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
☐ Salt Crust (B11)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Stunted or Stressed Plants (D1) (LRR A)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)
☐ Raised Ant Mounds (D6) (LRR A)
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
 Water Table Present? Yes X No _____ Depth (inches): 8"
 Saturation Present? Yes X No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site A22 City/County Challam Sampling Date 8P3
 Applicant/Owner Morrison State Sampling Point 3.19.10
 Investigator(s) RMJ/S Section, Township, Range
 Landform (hillslope, terrace, etc.) Local relief (concave, convex, none) Slope (%)
 Subregion (LRR) Lat Long Datum
 Soil Map Unit Name NWI classification
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			
Remarks					

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 <u> </u>				Number of Dominant Species That Are OBL, FACW, or FAC	<u>2</u> (A)
2 <u> </u>				Total Number of Dominant Species Across All Strata	<u>3</u> (B)
3 <u> </u>				Percent of Dominant Species That Are OBL, FACW, or FAC	<u>66.7</u> (A/B)
4 <u> </u>					
				= Total Cover	
Sapling/Shrub Stratum (Plot size <u> </u>)					
1 <u> </u>					
2 <u> </u>					
3 <u> </u>					
4 <u> </u>					
5 <u> </u>					
				= Total Cover	
Herb Stratum (Plot size <u> </u>)					
1 <u>Festuca Rubra</u>	<u>50</u>	<u>X</u>	<u>FAC</u>		
2 <u>Dactylis glomerata</u>	<u>20</u>	<u>X</u>	<u>FACW</u>		
3 <u>Galus lanatus</u>	<u>20</u>	<u>X</u>	<u>FAC</u>		
4 <u>Saniculus spp</u>	<u>15</u>		<u>FACW</u>		
5 <u>Traxacum officinale</u>	<u>5</u>		<u>FACW</u>		
6 <u>Trifolium spp</u>	<u>5</u>		<u>FAC</u>		
7 <u> </u>					
8 <u> </u>					
9 <u> </u>					
10 <u> </u>					
11 <u> </u>					
				= Total Cover	
Woody Vine Stratum (Plot size <u> </u>)					
1 <u> </u>					
2 <u> </u>					
				= Total Cover	
% Bare Ground in Herb Stratum <u>10.1</u>					
Remarks					

Prevalence Index worksheet:	
Total % Cover of	Multiply by
OBL species <u> </u>	x 1 = <u> </u>
FACW species <u> </u>	x 2 = <u> </u>
FAC species <u> </u>	x 3 = <u> </u>
FACU species <u> </u>	x 4 = <u> </u>
UPL species <u> </u>	x 5 = <u> </u>
Column Totals <u> </u> (A)	<u> </u> (B)
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:	
Dominance Test is >50%	
Prevalence Index is ≤3.0	
Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)	
Wetland Non-Vascular Plants	
Problematic Hydrophytic Vegetation (Explain)	
Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	

Hydrophytic Vegetation Present?	
Yes <u>X</u>	No <u> </u>

Sampling Point1

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[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³

☐ 2 cm Muck (A10)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks

Wetland Hydrology Indicators:

Secondary indicators (2 or more required)

___ Surface Water (A1)	___ Water-Stained Leaves (B9) (except MLRA	___ Water-Stained Leaves (B9) (MLRA 1, 2,
___ High Water Table (A2)	___ 1, 2, 4A, and 4B)	___ 4A, and 4B)
___ Saturation (A3)	___ Salt Crust (B11)	___ Drainage Patterns (B10)
___ Water Marks (B1)	___ Aquatic Invertebrates (B13)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Hydrogen Sulfide Odor (C1)	___ Saturation Visible on Aerial Imagery (C9)
___ Drift Deposits (B3)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Geomorphic Position (D2)
___ Algal Mat or Crust (B4)	___ Presence of Reduced Iron (C4)	___ Shallow Aquitard (D3)
___ Iron Deposits (B5)	___ Recent Iron Reduction in Tilled Soils (C6)	___ FAC-Neutral Test (D5)
___ Surface Soil Cracks (B6)	___ Stunted or Stressed Plants (D1) (LRR A)	___ Raised Ant Mounds (D6) (LRR A)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Frost-Heave Hummocks (D7)
___ Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes X No Depth (inches):
 Water Table Present? Yes X No Depth (inches):
 Saturation Present? Yes X No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available

Remarks